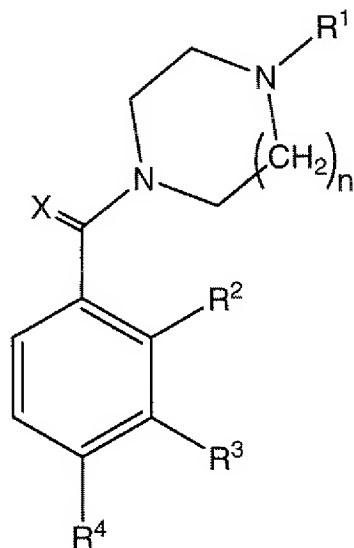


**In the Claims:**

This listing of claims will replace all prior versions and listing of claims in this application.

1. (previously presented) A compound of formula (I):



(I)

wherein

R<sup>1</sup> is branched C<sub>3-5</sub> alkyl, C<sub>3-8</sub> alkenyl, C<sub>3-8</sub> cycloalkyl, (C<sub>3-8</sub> cycloalkyl)C<sub>1-6</sub> alkyl, (C<sub>3-8</sub> cycloalkyl)C<sub>3-8</sub> alkenyl, or (C<sub>1-8</sub> alkylcarbonyl)C<sub>1-8</sub> alkyl;

n is 1;

X is O;

R<sup>2</sup> and R<sup>3</sup> independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C<sub>1-3</sub>alkoxy;

R<sup>4</sup> is G

G is LQ;

L is -CH<sub>2</sub>-;

Q is a saturated, un-substituted N-linked heterocyclyl, selected from the group consisting of azepanyl, morpholinyl, piperidinyl and pyrrolidinyl;

wherein each of the above alkyl, alkenyl, and cycloalkyl, groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxy, and C<sub>1-3</sub> alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

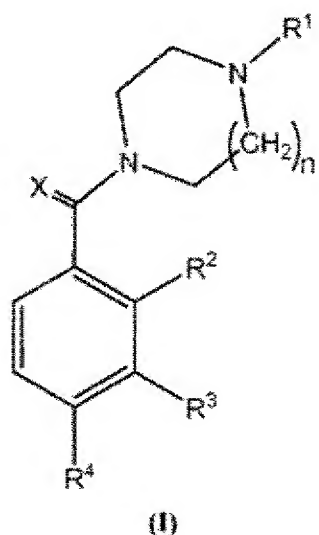
2-40. Cancelled

41. (original) A compound of claim 1 selected from the group consisting of:  
(4-Azepan-1-ylmethyl-phenyl)-(4-*sec*-butyl-piperazin-1-yl)-methanone;  
(4-Isopropyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
(4-*sec*-Butyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-pyrrolidin-1-ylmethyl-phenyl)-methanone;  
(4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone;  
(4-*sec*-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride; and  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.
42. (original) A pharmaceutical composition, comprising a compound of claim 1 and a pharmaceutically-acceptable excipient.
43. (original) A compound of claim 1 isotopically-labelled to be detectable by PET or SPECT.

Claims 44-50: Cancelled.

51. (original) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.

52. (original) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 1.
53. (original) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.
- 54-60. Cancelled
61. (previously presented) A compound that is: (4-sec-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.
62. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.
63. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-{4-(decahydro-isoquinolin-2-ylmethyl)-phenyl}-methanone.
64. (previously presented) A compound of formula (I):



wherein

R<sup>1</sup> is C<sub>3-8</sub> cycloalkyl;

n is 1;

X is O;

R<sup>2</sup> and R<sup>3</sup> independently are hydrogen, fluoro, chloro, bromo, nitro,  
trifluoromethyl, methyl, or C<sub>1-3</sub>alkoxy;

R<sup>4</sup> is G

G is LQ;

L is -CH<sub>2</sub>-;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above cycloalkyl groups may each be independently and  
optionally substituted with between 1 and 3 substituents independently selected  
from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and C<sub>1-3</sub> alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

65. (previously presented) A compound of claim 64, wherein Q is morpholinyl.

66. (previously presented) A pharmaceutical composition, comprising a compound of  
claim 64 and a pharmaceutically-acceptable excipient.

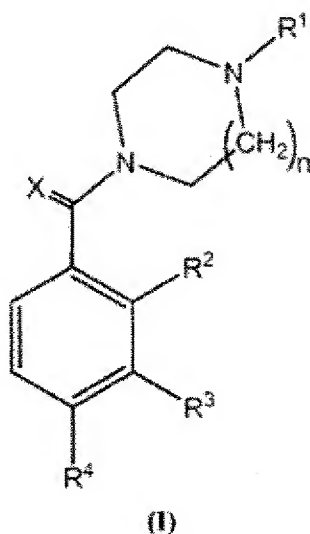
67. (previously presented) A compound of claim 64 isotopically-labelled to be  
detectable by PET or SPECT.

68. (previously presented) A method for treating one or more disorders or conditions  
selected from the group consisting of sleep/wake disorders, narcolepsy, and  
arousal/vigilance disorders, comprising administering to a subject a therapeutically  
effective amount of a compound of claim 64.

69. (previously presented) A method for treating attention deficit hyperactivity  
disorders (ADHD), comprising administering to a subject a therapeutically effective  
amount of a compound of claim 64.

70. (previously presented) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

71. (previously presented) A compound of formula (I):



wherein

$R^1$  is branched  $C_{3-5}$  alkyl;

$n$  is 1;

$X$  is O;

$R^2$  and  $R^3$  independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or  $C_{1-3}$ alkoxy;

$R^4$  is G

G is LQ;

L is  $-CH_2-$ ;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above alkyl groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and  $C_{1-3}$  alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

72. (previously presented) A compound of claim 71, wherein R<sup>1</sup> is isopropyl.
73. (previously presented) A compound of claim 71, wherein Q is morpholinyl.
74. Cancelled
75. (previously presented) A compound that is: (4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone.
76. (previously presented) A pharmaceutical composition, comprising a compound of claim 71 and a pharmaceutically-acceptable excipient.
77. (previously presented) A compound of claim 71 isotopically-labelled to be detectable by PET or SPECT.
78. (previously presented) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.
79. (previously presented) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 71.
80. (previously presented) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.